

**Case No. 5:16-cv-00001-D**

**DEFENDANT APPLE INC.'S  
ANSWER, AFFIRMATIVE DEFENSES,  
AND COUNTERCLAIMS TO  
VALENCCELL'S FIRST AMENDED  
COMPLAINT FOR PATENT  
INFRINGEMENT**

**JURY TRIAL DEMANDED**

Defendant Apple Inc. (“Apple”) files this Answer, Affirmative Defenses, and Counterclaims to Plaintiff Valencell, Inc.’s (“Valencell”) First Amended Complaint for Patent Infringement (“Complaint”). Except as expressly admitted below, Apple denies each and every allegation set forth in the Complaint. Apple responds to the numbered paragraphs of the Complaint and the prayer for relief as follows:

## THE PARTIES

1. Apple lacks knowledge or information sufficient to form a belief about the allegations in Paragraph 1, and therefore denies them.
2. Apple admits the allegations in Paragraph 2.

## JURISDICTION AND VENUE

3. Apple admits that Valencell purports to bring an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.* Apple admits this Court has subject matter jurisdiction over meritorious actions for patent infringement generally under 35 U.S.C. §§ 1331 and 1338(a). Apple further admits this Court has original jurisdiction over

meritorious claims of unfair competition when joined with a substantial and related claim for patent infringement generally under 35 U.S.C. § 1338(b). Apple further admits that the Court has personal jurisdiction over it. Apple denies that Valencell states a meritorious claim of patent infringement against Apple, denies that it has committed any acts infringing the asserted patents in this District or elsewhere, denies that Valencell states a meritorious claim for unfair competition against Apple, and further denies that it has committed any acts of unfair competition in this District or elsewhere. Apple lacks knowledge or information sufficient to form a belief about the remaining allegations in Paragraph 3, and therefore denies them.

4. Apple denies that venue over Valencell's patent infringement claims is proper under 28 U.S.C. § 1391 and § 1400(b) and denies that venue over Valencell's Count V for Unfair and Deceptive Trade Practices/Unfair Competition N.C.G.S. § 75-1.1 is proper under 28 U.S.C. § 1400(b). For purposes of this litigation only, Apple admits that venue over Valencell's Count V for Unfair and Deceptive Trade Practices/Unfair Competition N.C.G.S. § 75-1.1 is technically proper in this District pursuant to 28 U.S.C. §§ 1391. Apple denies that this District is the most convenient venue for adjudication of Valencell's claims against Apple. Apple further denies that it has committed any acts of patent infringement or unfair competition in this District or elsewhere. Apple denies all remaining allegations in Paragraph 4.

### **FACTUAL ALLEGATIONS**

5. Apple admits that as of February 2013 Apple's plans to develop and/or implement the Apple Watch were underway and that Apple was developing a heart sensor to incorporate into the Apple Watch. Apple denies that its efforts to develop and/or implement the Apple Watch, including a heart sensor for the Apple Watch, began in or around February 2013. Apple lacks knowledge or information sufficient to form a belief as to whether, when, or why Liang

Hoe, who is no longer employed by Apple, contacted Valencell. Apple admits that Valencell shared limited information about its PerformTek-Powered technology with Apple, which Valencell partners incorporated into publicly available devices, such as the iRiver ON headphones. Apple denies the remaining allegations in Paragraph 5.

6. Apple admits that the IP addresses in paragraph 6 are assigned to Apple and that one or more Apple employees may have accessed information that Valencell makes freely available on its website, [www.valencell.com](http://www.valencell.com), to promote its technology. Apple is without information sufficient to form a belief as to the remaining allegations in Paragraph 6, and therefore denies them.

7. Apple admits Valencell's website makes certain white papers freely available to the public and that one or more Apple employees may have downloaded one or more of those white papers from Valencell's website. Apple denies that any such employee provided fictitious information and denies all remaining allegations in Paragraph 7.

8. Apple admits that one or more Apple employees may have accessed Valencell's website; admits that Brian Land and Matt Last were involved in the design and/or implementation of the Apple Watch; and admits that Brian Land and Matt Last were involved in the design and/or implementation of the heart sensor in the Apple Watch. Apple denies that Thomas Pham, Mark Bagnola, and Mitch VanBruggen were involved in the design and/or implementation of the Apple Watch, or the design and/or implementation of the heart sensor in the Apple Watch. Apple is without information sufficient to form a belief as the remaining allegations in Paragraph 8, and therefore denies them.

9. Apple admits that one or more Apple employees may have accessed Valencell's website, and admits that Apple employees met with Valencell employees, including Dr. Steven

LeBoeuf, in June 2013. Apple is without information sufficient to form a belief as to the remaining allegations in Paragraph 9, and therefore denies them.

10. Apple admits that Valencell brought a prototype watch to a meeting with Apple employees in the summer of 2013 and admits that one or more of the Apple employees in attendance was involved in the hardware design of the Apple Watch. Apple denies that the heart-rate monitor of the Valencell prototype watch was substantially similar to the Apple Watch and denies the remaining allegations in Paragraph 10.

11. Apple admits that, in or around August 2013, Apple obtained a publicly available headphone device, the iRiver ON, which purports to contain PerformTek-Powered technology. Apple further admits that Apple subsequently conducted validation testing of the heart sensor data from the iRiver ON with Valencell's permission and subject to a Confidentiality Agreement between Apple and Valencell. Apple denies that it exceeded the scope and purpose of the Confidentiality Agreement between Apple and Valencell. Apple denies the remaining allegations in Paragraph 11.

12. Apple admits that Valencell shared information with Apple in 2014 subject to a Confidentiality Agreement between Apple and Valencell. Apple denies that it exceeded the scope and purpose of the Confidentiality Agreement between Apple and Valencell. Apple admits that in December 2014, Apple employees met with Valencell employees, including Dr. LeBoeuf. Apple denies the remaining allegations in Paragraph 12.

13. Apple admits that it began shipping the Apple Watch on April 24, 2015; admits that, since that date, Apple has sold the Apple Watch in the United States; and admits that the Apple Watch contains a heart rate sensor. Apple denies the remaining allegations in Paragraph 13.

14. Apple denies the allegations in Paragraph 14.

**COUNT I**  
**(Infringement of U.S. Patent No. 8,923,941)**

15. Apple repeats and incorporates by reference each of the responses set forth in response to Paragraph 1 through 14.

16. Apple admits that Exhibit A to the Complaint appears to be an uncertified copy of U.S. Patent No. 8,923,941 (“the ‘941 patent”), entitled “Methods and Apparatus for Generating Data Output Containing Physiological and Motion-Related Information.” Apple is without knowledge or information sufficient to form a belief regarding the remaining allegations set forth in Paragraph 16 of the Complaint, and therefore denies them.

17. Apple denies the allegations of Paragraph 17, and specifically denies that the ‘941 Patent is valid, enforceable, and was duly and legally issued.

18. Apple denies the allegations in Paragraph 18, and specifically denies that it committed any acts of infringement.

19. Apple denies the allegations in Paragraph 19, and specifically denies that it committed any acts of infringement.

20. Apple denies the allegations in Paragraph 20.

21. Apple denies the allegations in Paragraph 21, and specifically denies that it committed any acts of infringement.

**COUNT II**  
**(Infringement of U.S. Patent No. 8,886,269)**

22. Apple repeats and incorporates by reference each of the responses set forth in response to Paragraphs 1 through 21.

23. Apple admits that Exhibit B to the Complaint appears to be an uncertified copy of U.S. Patent No. 8,886,269 (“the ‘269 patent”), entitled “Wearable Light-Guiding Bands for

Physiological Monitoring.” Apple is without knowledge or information sufficient to form a belief regarding the remaining allegations set forth in Paragraph 23 of the Complaint, and therefore denies them.

24. Apple denies the allegations of Paragraph 24, and specifically denies that the ‘269 Patent is valid, enforceable, and was duly and legally issued.

25. Apple denies the allegations in Paragraph 25, and specifically denies that it committed any acts of infringement.

26. Apple denies the allegations in Paragraph 26, and specifically denies that it committed any acts of infringement.

27. Apple denies the allegations in Paragraph 27.

28. Apple denies the allegations in Paragraph 28, and specifically denies that it committed any acts of infringement.

**COUNT III**  
**(Infringement of U.S. Patent No. 8,929,965)**

29. Apple repeats and incorporates by reference each of the responses set forth in response to Paragraphs 1 through 28.

30. Apple admits that Exhibit C to the Complaint appears to be an uncertified copy of U.S. Patent No. 8,929,965 (“the ‘965 patent”), entitled “Light-Guiding Devices and Monitoring Devices Incorporating Same.” Apple is without knowledge or information sufficient to form a belief regarding the remaining allegations set forth in Paragraph 30 of the Complaint, and therefore denies them.

31. Apple denies that the ‘965 Patent is valid, enforceable, and was duly and legally issued.

32. Apple denies the allegations in Paragraph 32, and specifically denies that it

committed any acts of infringement.

33. Apple denies the allegations in Paragraph 33, and specifically denies that it committed any acts of infringement.

34. Apple denies the allegations in Paragraph 34.

35. Apple denies the allegations in Paragraph 35, and specifically denies that it committed any acts of infringement.

**COUNT IV**  
**(Infringement of U.S. Patent No. 8,989,830)**

36. Apple repeats and incorporates by reference each of the responses set forth in response to Paragraphs 1 through 35.

37. Apple admits that Exhibit D to the Complaint appears to be an uncertified copy of U.S. Patent No. 8,989,830 (“the ‘830 patent”), entitled “Wearable Light-Guiding Devices for Physiological Monitoring.” Apple is without knowledge or information sufficient to form a belief regarding the remaining allegations set forth in Paragraph 37 of the Complaint, and therefore denies them.

38. Apple denies that the ‘830 Patent is valid, enforceable, and was duly and legally issued.

39. Apple denies the allegations in Paragraph 39, and specifically denies that it committed any acts of infringement.

40. Apple denies the allegations in Paragraph 40, and specifically denies that it committed any acts of infringement.

41. Apple denies the allegations in Paragraph 41, and specifically denies that it committed any acts of infringement.

**COUNT V**  
**(Unfair and Deceptive Trade Practices/Unfair Competition N.C.G.S. § 75-1.1)**

42. Apple repeats and incorporates by reference each of the responses set forth in response to Paragraphs 1 through 41.

43. Apple denies the allegations of Paragraph 43, and specifically denies that it committed any acts of unfair competition and deceptive trade practices.

44. Apple denies the allegations in Paragraph 44, and specifically denies that it committed any acts of unfair competition and deceptive trade practices.

**JURY DEMAND**

The allegations contained in this paragraph do not contain facts that Apple must admit or deny.

**PRAYER FOR RELIEF**

Paragraphs A through K following the Prayer for Relief each contains a request for relief to which no response is required. To the extent a response is required, Apple denies that Valencell is entitled to any relief from Apple in connection with Valencell's Complaint, including, without limitation, the relief specified in Paragraphs A through K of the Prayer for Relief.

**APPLE'S AFFIRMATIVE DEFENSES**

Apple pleads the following as affirmative defenses to Valencell's Complaint. Apple reserves the right to amend its Answer to add additional affirmative defenses not presented herein, including but not limited to, those defenses revealed during discovery. Without admitting or acknowledging that Apple bears the burden of proof as to any of the following, based on information and belief, Apple asserts the following defenses:



### **FIRST AFFIRMATIVE DEFENSE**

One or more claims of the '941, '269, '965, and '830 patents are invalid for failure to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. §§ 101 *et seq.*, including 35 U.S.C. §§ 101, 102, 103, and/or 112.

### **SECOND AFFIRMATIVE DEFENSE**

Apple has not directly infringed, and does not infringe, either literally or under the doctrine of equivalents, any claim of the '941, '269, '965, and '830 patents.

### **THIRD AFFIRMATIVE DEFENSE**

Valencell's claims for infringement of the '941, '269, '965, and '830 patents are barred, in whole or in part, by the doctrines of prosecution history estoppel and/or prosecution disclaimer due to representations, amendments, arguments, and admissions made to the United States Patent and Trademark Office during the prosecution of the '941, '269, '965, and '830 patents.

### **FOURTH AFFIRMATIVE DEFENSE**

Valencell's claims for alleged damages or costs are barred, in whole or in part, by 35 U.S.C. § 288.

### **FIFTH AFFIRMATIVE DEFENSE**

Valencell's Complaint fails to state a claim upon which relief can be granted.

### **SIXTH AFFIRMATIVE DEFENSE**

Valencell's request for relief is barred, in whole or in part, by agreements between Apple and Valencell, including (1) a Confidentiality Agreement dated May 29, 2013, and (2) a Confidentiality Agreement dated October 24, 2013.

### **SEVENTH AFFIRMATIVE DEFENSE**

Count V of Valencell's Complaint (Unfair and Deceptive Trade Practices/Unfair Competition N.C.G.S. § 75-1.1) is barred, in whole or in part, pursuant to the doctrine of federal preemption.

### **COUNTERCLAIMS**

Apple incorporates by reference its above responses as if fully set forth herein. In accordance with Rule 13 of the Federal Rules of Civil Procedure, Apple asserts the following counterclaims against Valencell:

### **PARTIES**

1. Counterclaim-Plaintiff Apple is a California corporation having its principal place of business at 1 Infinite Loop, Cupertino, California 95014.

2. On information and belief, Valencell is a Delaware corporation with its principal place of business at 4601 Six Forks Rd., Suite 103, Raleigh, North Carolina.

### **JURISDICTION**

3. The Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1338(a), the patent laws of the United States, 35 U.S.C. § 1 et seq., and the Declaratory Judgment Act, 28 U.S.C. §§ 2201, 2202.

4. Valencell has consented to personal jurisdiction of this Court by commencing its action for patent infringement against Apple in this Court.

### **VENUE**

5. To the extent the action initiated by Valencell's Complaint is adjudicated in this District, venue is proper within this District pursuant to 28 U.S.C. § 1391(b) and (c). However, venue in this district is not convenient or in the interests of justice under 28 U.S.C. § 1404(a).

**COUNT I**  
**(Declaration of Invalidity of U.S. Patent No. 8,923,941)**

6. Apple repeats and realleges paragraphs 1 through 5 of this Counterclaim.

7. None of the asserted claims of the '941 patent is valid because the claims fail to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. § 101 *et seq.*, including 35 U.S.C. §§ 101, 102, 103, and 112.

8. In Paragraph 17 of its Complaint, Valencell alleges that the '941 patent is valid.

9. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '941 patent are valid.

10. Apple is entitled to a judicial determination that the asserted claims of the '941 patent are invalid.

**COUNT II**  
**(Declaration of Non-Infringement of U.S. Patent No. 8,923,941)**

11. Apple repeats and realleges Paragraphs 1 through 10 of this Counterclaim.

12. None of the asserted claims of the '941 patent are directly infringed by Apple either literally and/or under the doctrine of equivalents.

13. In Paragraphs 18-19 of its Complaint, Valencell alleges that Apple has infringed and continues to infringe the '941 patent.

14. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '941 patent are infringed.

15. Apple is entitled to a judicial determination that Apple has not directly infringed and/or indirectly infringed the asserted claims of the '941 patent.

**COUNT III**  
**(Declaration of Invalidity of U.S. Patent No. 8,886,269)**

16. Apple repeats and realleges Paragraphs 1 through 15 of this Counterclaim.

17. None of the asserted claims of the '269 patent is valid because the claims fail to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. § 101 *et seq.*, including 35 U.S.C. §§ 101, 102, 103, and 112.

18. In Paragraph 24 of its Complaint, Valencell alleges that the '269 patent is valid.

19. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '269 patent are valid.

20. Apple is entitled to a judicial determination that the asserted claims of the '269 patent are invalid.

**COUNT IV**  
**(Declaration of Non-Infringement of U.S. Patent No. 8,886,269)**

21. Apple repeats and realleges Paragraphs 1 through 20 of this Counterclaim.

22. None of the asserted claims of the '269 patent are directly infringed by Apple either literally and/or under the doctrine of equivalents.

23. In Paragraphs 25-26 of its Complaint, Valencell alleges that Apple has infringed and continues to infringe the '269 patent.

24. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '269 patent are infringed.

25. Apple is entitled to a judicial determination that Apple has not directly infringed and/or indirectly infringed the asserted claims of the '269 patent.

**COUNT V**  
**(Declaration of Invalidity of U.S. Patent No. 8,929,965)**

26. Apple repeats and realleges Paragraphs 1 through 25 of this Counterclaim.

27. None of the asserted claims of the '965 patent is valid because the claims fail to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. § 101 *et seq.*, including 35 U.S.C. §§ 101, 102, 103, and 112.

28. In Paragraph 31 of its Complaint, Valencell alleges that the '965 patent is valid.

29. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '965 patent are valid.

30. Apple is entitled to a judicial determination that the asserted claims of the '965 patent are invalid.

**COUNT VI**  
**(Declaration of Non-Infringement of U.S. Patent No. 8,929,965)**

31. Apple repeats and realleges Paragraphs 1 through 30 of this Counterclaim.

32. None of the asserted claims of the '965 patent are directly infringed by Apple either literally and/or under the doctrine of equivalents.

33. In Paragraphs 32-33 of its Complaint, Valencell alleges that Apple has infringed and continues to infringe the '965 patent.

34. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '965 patent are infringed.

35. Apple is entitled to a judicial determination that Apple has not directly infringed and/or indirectly infringed the asserted claims of the '965 patent.

**COUNT VII**  
**(Declaration of Invalidity of U.S. Patent No. 8,989, 830)**

36. Apple repeats and realleges Paragraphs 1 through 35 of this Counterclaim.

37. None of the asserted claims of the '830 patent is valid because the claims fail to meet the conditions of patentability and/or otherwise comply with one or more provisions of 35 U.S.C. § 101 *et seq.*, including 35 U.S.C. §§ 101, 102, 103, and 112.

38. In Paragraph 38 of its Complaint, Valencell alleges that the '830 patent is valid.

39. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '830 patent are valid.

40. Apple is entitled to a judicial determination that the asserted claims of the '830 patent are invalid.

**COUNT VIII**  
**(Declaration of Non-Infringement of U.S. Patent No. 8,989, 830)**

41. Apple repeats and realleges Paragraphs 1 through 40 of this Counterclaim.

42. None of the asserted claims of the '830 patent are directly infringed by Apple either literally and/or under the doctrine of equivalents.

43. In Paragraphs 39-40 of its Complaint, Valencell alleges that Apple has infringed and continues to infringe the '830 patent.

44. There exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment as to whether the asserted claims of the '830 patent are infringed.

45. Apple is entitled to a judicial determination that Apple has not directly infringed and/or indirectly infringed the asserted claims of the '830 patent.

### **PRAYER FOR RELIEF**

WHEREFORE, Apple respectfully requests entry of judgment in its favor and against Valencell as follows:

1. Dismissing, with prejudice, Valencell's claims against Apple;
2. Enter judgment declaring that each asserted claim in the '941, '269, '965, and '830 patents is invalid;
3. Enter judgment declaring that each asserted claim in the '941, '269, '965, and '830 patents is not directly infringed;
4. That the Court deny Valencell's request for any relief under 35 U.S.C. § 285;
5. That the Court deny Valencell's request for interest, costs, treble damages, or any other relief under 35 U.S.C. § 284;
6. That the Court deny Valencell's request for a preliminary and permanent injunction;
7. That the Court find this to be an exceptional case under 35 U.S.C. § 285, entitling Apple to an award of its reasonable attorneys' fees;
8. That the Court award Apple its costs associated with this case; and
9. For such other and further relief as the Court may deem just, proper, and equitable under the circumstances.

### **DEMAND FOR A JURY TRIAL**

Apple demands a trial by jury on all claims and issues so triable.

/s/ Craig D. Schauer

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**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that on March 21, 2016, I electronically filed the foregoing with the Clerk of Court for the United States District Court for the Eastern District of North Carolina using the CM/ECF Filing System, which will send notification via electronic means to all counsel of record.

This 21st day of March, 2016.

/s/ Craig D. Schauer  
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